

7. REGULATORY COMPLIANCE AND PERMIT REQUIREMENTS

This section lists federal, state, and local regulatory compliance and permit requirements for the proposed project.

Under Section 7 of the Endangered Species Act of 1973 (Pub. L. 93-205, as amended), DOE must consult with the U.S. Fish and Wildlife Service to ensure that proposed actions are not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of the critical habitat of such species. Appendix A documents the findings of the U.S. Fish and Wildlife Service from such consultation and findings from consultation with the National Marine Fisheries Service regarding listed species of endangered and threatened marine life under their jurisdiction.

Under Section 106 of the National Historic Preservation Act (Pub. L. 89-665, as amended), DOE must consult with the Florida Historic Preservation Agency to ensure compliance with the act. Appendix B documents this agency's findings from such consultation.

Appendix C documents DOE's consultation with the Florida State Clearinghouse, which was contacted to solicit environmental issues of potential concern associated with the proposed project.

7.1 FEDERAL REQUIREMENTS

CLEAN AIR ACT (CAA)

- Enacted by Pub. L. 90-148, Air Quality Act of 1967 (42 USC 7401 et seq.)
- Amended by Pub. L. 101-549, Clean Air Act Amendments of 1990
- Comprised of Titles I through VI
- Applicable titles
 - Title I—Air Pollution Prevention and Control. This Title is the basis for air quality and emission limitations, PSD permitting program, State Implementation Plans, New Source Performance Standards, and National Emissions Standards for Hazardous Air Pollutants. The PSD permitting program serves as the basis for PSD Construction Permits which are required by this Title of the Act.
 - Title IV—Acid Deposition Control. This Title establishes limitations on sulfur dioxide and nitrogen oxide emissions, permitting requirements, monitoring programs, reporting and record keeping requirements, and compliance plans for emission sources. This Title requires that emissions of sulfur dioxide from utility sources be limited to the amounts of allowances held by the sources.
 - Title V—Permitting. This is the basis for the Operating Permit Program and it establishes permit conditions, including monitoring and analysis, inspections, certification, and reporting.
- Regulations implementing the CAA are found in 40 CFR Parts 50–95.

- In Florida, enforcement of the CAA has been delegated to the FDEP. JEA will submit all permit applications for the repowering project at Northside Generating Station to the FDEP (see Section 7.2).

FEDERAL WATER POLLUTION CONTROL ACT

- Enacted by Pub. L. 92-500 (33 USC 1251 et seq.)
- Amended by Pub. L. 95-217, Clean Water Act of 1977 (CWA) and Pub. L. 100-4, Water Quality Act of 1987
- Comprised of Titles I through IV
- Applicable titles
 - Title III—Standards and Enforcement

Section 316—Thermal Discharges. Section 316 (a) addresses the permitting of thermal discharges that can allow alternative thermal effluent limitations that are less stringent than the limitations under Section 402(a) of the CWA. This section states that, if an owner of a discharge subject to Section 301 (Effluent Limitations) or Section 306 (National Standards of Performance) can demonstrate that an effluent limitation is “. . . more stringent than necessary to assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water into which the discharge is to be made. . .”, then another effluent limitation may be imposed “. . .with respect to the thermal component of such discharge. . .”

Section 316 (b) addresses the permitting of water intake structures and requires that “Any standard established pursuant to Section 301 or Section 306 of this Act and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect best technology available for minimizing adverse environmental impact.”

JEA will not be required to provide either of these demonstrations unless the thermal characteristics of the cooling water discharge or the design or capacity of the cooling water intake structure at Northside Generating Station are altered as a result of the repowering project.

- Title IV—Permits and Licenses

Section 402, National Pollutant Discharge Elimination System (NPDES). This section regulates the discharge of pollutants to surface waters. Regulations implementing the NPDES program are found in 40 CFR Part 122.

Section 404, Permits for Dredged or Fill Material. This section regulates the discharge of dredged or fill material in the jurisdictional wetlands and waters of the United States. The U.S. Army Corps of Engineers (COE) has been delegated the responsibility for authorizing these actions. Therefore, as a result of construction activities which might occur in

- jurisdictional wetlands during this project, JEA will be required to apply to the COE for a Dredge and Fill Permit pursuant to the provisions of this section of the CWA.
- Regulations implementing the CWA are found in 40 CFR Parts 104–140. Regulations which affect the permitting of this project include
 - 40 CFR Part 112—Oil Pollution Prevention. This regulation requires the preparation of a Spill Prevention, Control, and Countermeasure Plan. As a result of changes to the oil storage capacity at Northside Generating Station and, therefore, its potential for discharging oil to surface waters, JEA will be required to amend the existing Northside Generating Station Spill Prevention, Control, and Countermeasure Plan.
 - 40 CFR Part 122—NPDES. This regulation requires the permitting and monitoring of any discharges to waters of the United States. The responsibility for issuing wastewater NPDES permits in the state of Florida has been delegated to the FDEP. Therefore, as a result of changes to the characteristics of the wastewater discharges at Northside Generating Station resulting from this project, JEA will apply to the FDEP for a modification of its existing NPDES permit #FL00001031 (see Section 7.2).

EPA has retained the permitting authority for storm water NPDES permits in Florida. JEA is authorized to discharge storm water associated with industrial or construction activities at Northside Generating Station under the terms and conditions of an NPDES storm water general permit issued by the EPA for use in the state of Florida. However, because the Northside Generating Station repowering project will result in changes to existing storm water management practices at Northside Generating Station, JEA will be required to update the Storm Water Pollution Prevention Plan required by its NPDES Storm Water General Permit #FLR00B341.

EXECUTIVE ORDERS 11988 AND 11990

Executive Order 11988, Floodplain Management, directs federal agencies to establish procedures to ensure that they consider potential effects of flood hazards and floodplain management for any action undertaken. Agencies are to avoid impacts to floodplains to the extent practical. Executive Order 11990, Protection of Wetlands, requires federal agencies to avoid short- and long-term impacts to wetlands if a practical alternative exists. DOE regulation 10 CFR Part 1022 establishes procedures for compliance with these Executive Orders. Where there is no practical alternative to development in floodplain and wetlands, DOE is required to prepare a floodplain and wetlands assessment discussing the effects on the floodplain and wetlands, and consideration of alternatives. In addition, these regulations require DOE to design or modify its actions to minimize potential damage in floodplains or harm to wetlands. DOE is also required to provide opportunity for public review of any plans or proposals for actions in floodplains (and new construction in wetlands).

The floodplain and wetlands assessment discussing the effects on floodplain and wetlands anticipated from this proposed project has been prepared and included in this EIS, as required by DOE regulation [10 CFR Part 1022.12(b)]. For a full review of the floodplain and wetlands assessment, please refer to these additional sections of the EIS: Section 3.5.1 (Floodplains—Existing Environment), Section 3.5.3 (Wetlands—Existing Environment), Section 4.1.5.1 (Floodplains— Environmental Consequences), and Section 4.1.5.3 (Wetlands—Environmental Consequences). Opportunity for public comment and suggestions on the proposed scope of the EIS, including floodplain and wetlands issues and alternatives, was provided during the public scoping period announced by the Notice of Intent published by DOE on November 13, 1997 (62 *FR* 60889–92). Additional opportunity for public review of the proposed project’s potential effects on floodplain and wetlands is provided during the public comment period on this draft EIS.

As discussed in the previous section on the Federal Water Pollution Control Act, Section 404 of the Clean Water Act regulates the discharge of dredged or fill material in the jurisdictional wetlands and waters of the United States. The COE has been delegated the responsibility for authorizing these actions. In addition, according to provisions of Chapter 62-330 of the Florida Administrative Code, JEA will be required to apply to the FDEP for a Submerged Lands & Environmental Resource Permit (SLERP) that addresses dredging and filling activities including excavation in surface waters or wetlands, excavation or creation of a water body that is or would be connected to surface waters or wetlands, and filling or deposition by any means of materials in surface waters or wetlands (see Section 7.2). The COE and FDEP have been notified of the proposed activities to determine the necessary permit submittal requirements.

For actions that would be located in a floodplain, DOE regulations require a brief statement of findings describing the proposed action, location, alternatives considered, compliance of the proposed project with applicable state and local floodplain protection standards, and steps to be taken to minimize potential harm to or within the floodplain. The statement of findings for this proposed action is given in the following discussion, as provided by DOE regulation [10 CFR Part 1022.15(b)(5)].

STATEMENT OF FINDINGS—FLOODPLAINS

Proposed Federal Action. The proposed action is for DOE to provide support through cost-shared funding for the design, construction, and demonstration of CFB combustion technology for electric power generation at a size sufficient to allow utilities to make decisions regarding commercialization of the technology. Specifically, DOE will decide on providing approximately \$75 million (about 24% of the total cost of approximately \$309 million) to demonstrate CFB technology at JEA’s Northside Generating Station in Jacksonville, Florida. The new CFB combustor would use coal and petroleum coke to generate nearly 300 MW of electricity by repowering the existing Unit 2 steam turbine, a 297.5-MW unit that has not operated since 1983. In doing so, the proposed project is expected to demonstrate emission levels following the combined removal of SO₂,

NO_x, and particulate matter that would be lower than CAA limits while at the same time producing power more efficiently and at less cost. More detailed information on the proposed project is presented in Section 2. Environmental impact analysis for the proposed project is provided in Section 4.1.

Location. The site for the proposed project in Jacksonville, Florida, is located about 9 miles northeast of the downtown area. This 400-acre industrial site at the existing Northside Generating Station is situated along the north shore of the St. Johns River, approximately 10 miles west of the Atlantic Ocean. The local terrain is flat and there is a mix of industrial, commercial, residential, and agricultural land use in the vicinity. The most striking environmental feature associated with the area is the nearby presence of estuarine salt marsh backwaters of the St. Johns River. The industrial 1,650-acre St. Johns River Power Park borders Northside Generating Station to the northeast, and the 46,000-acre Timucuan Ecological and Historic Preserve borders the site to the east. Blount Island, located immediately to the southeast in the St. Johns River, is a major port with facilities for docking, loading, and unloading large ocean-going vessels.

Alternatives Considered. In addition to the proposed project, the EIS has considered three scenarios reasonably expected as a consequence of the no-action alternative. First, JEA could repower the existing Unit 2 steam turbine without DOE funding, thereby accepting more of the risk associated with demonstrating the CFB combustor. JEA would also proceed with the related action of repowering Unit 1. Second, rather than repowering Unit 2, JEA could construct and operate a new gas-fired combined cycle facility at Northside Generating Station or at one of their other existing power plants. The natural gas would drive a gas combustion turbine and the heat from combustion would be used to produce steam that would drive a steam turbine. Based on modeling projections by JEA, the facility would be expected to generate approximately 230 MW of electricity. Under this scenario, Northside Unit 1 would remain in its current oil- and gas-fired configuration, and JEA would not proceed with the related action of repowering Unit 1. Third, rather than repowering Unit 2, JEA could purchase electricity from other utilities to meet JEA's projected demand. Under this scenario, no construction activities or changes in current operations are expected to occur. JEA would not proceed with the related action of repowering Unit 1. More detailed information on alternatives considered is presented in Section 2.3. Environmental impact analysis for the three scenarios under no action is provided in Section 4.2.

Conformity with State and Local Floodplain Protection Standards. Only auxiliary facilities associated with the proposed project would be constructed on the 100-year floodplain, including (1) a second unloader and covered fuel storage at the existing St. Johns River coal terminal under Option 1, or (2) a solid fuel and limestone unloading terminal and pilings that support an elevated conveyor for solid fuel and limestone delivery to Northside Generating Station under Option 2. These facilities would not be large enough to block or encroach on the natural flow of rivers and tides near the shoreline, and excess water during an extreme flood would have sufficient area in which to

spread out without endangering neighboring facilities because of the vast array of tidal marshlands, the relatively low topographic relief in the vicinity, and the lack of prominent features.

JEA is planning to document and coordinate the results of floodplain evaluations with all appropriate federal, state, and local water resource agencies before the design of the proposed facilities is finalized. Contingent upon DOE approval of the proposed project through the Record of Decision, JEA would begin final project design and coordinate with the COE, FDEP, the Florida Department of Community Affairs [which makes Florida's final consistency determination with regard to the Coastal Management Act of 1978 (Sections 380.21-25, Florida Statutes)], and the city of Jacksonville (which regulates ordinance codes) to complete floodplain evaluations and submit permit applications.

Steps Taken to Minimize Potential Harm to or within the Floodplain. Only temporary access ways would be developed to allow for the entry and exit of personnel and equipment to construct the proposed facilities, including the pilings and elevated conveyor. Initial clearing would be accomplished by hand cutting to the greatest extent practical; mechanical equipment would be used when absolutely necessary. Some access by heavy equipment would be required to lift heavy objects, perform earthmoving activities, deliver concrete, and drive pilings. Construction activities would be scheduled to avoid wetter periods of the year, in order to minimize damage to vegetation and soil resources.

Any soils exposed by earth-disturbing activities would be restored through seeding and revegetation. Silt fencing also would be installed prior to construction to prevent sediment from washing into San Carlos Creek or the back channel of the St. Johns River.

RIVERS AND HARBORS ACT OF 1889

- Enacted by Chapter 425, March 3, 1889 (33 USC 401 et seq.)
- Regulations implementing this Act are found in 33 CFR Parts 320–338. The following regulations are applicable to this project:
 - 33 CFR Part 322—Permits for Structures or Work In or Affecting Navigable Water of the United States. Addresses permitting of construction activities in or over navigable waters, pursuant to the Act in Section 10, “Obstruction of excavations and filling in of navigable waters generally; wharves, piers, etc.” JEA will apply to the COE for a “Section 10” permit for the construction of a new fuel unloading dock and conveyor system pilings which will be part of the repowering project at Northside Generating Station.
 - 33 CFR Part 330—Nationwide Permit Program. Nationwide permits are issued by the COE to regulate, with little delay or paperwork, activities having minimal impact. One of the categories of activities regulated by the Nationwide Permit Program is the release of “Return Water from Upland Contained Disposal Areas.”

RESOURCE CONSERVATION AND RECOVERY ACT OF 1976

- Enacted by Pub. L. 94-580 (42 USC 6901 et seq.)
- Amended by Pub. L. 98-616, Hazardous and Solid Waste Amendments of 1984 and Pub. L. 99-499, Superfund Amendments and Reauthorization Act of 1986
- Applicable title
 - Title II—Solid Waste Disposal (known as the Solid Waste Disposal Act) regulates the disposal of solid wastes. Under Title II, Subtitle D—State or Regional Solid Waste Plans, allows each state to develop a comprehensive plan for managing and permitting the disposal of solid wastes. In Florida, permitting of solid waste management facilities is the responsibility of the FDEP. As a result of the generation of combustion byproducts during the operation of the repowered units at Northside Generating Station, JEA will be required to apply to the FDEP for a solid waste disposal permit (see Section 7.2).

ENDANGERED SPECIES ACT OF 1973

- Enacted by Pub. L. 93-205 (16 USC 1531 et seq.)
 - Section 7, “Interagency Cooperation,” requires any federal agency authorizing, funding, or carrying out any action to ensure that the action is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of critical habitat of such species. Consequently, the U.S. Fish and Wildlife Service will conduct a consultation, in compliance with Subsection (a)(2) of Section 7 of the Act, with regard to the impacts of the Northside Generating Station repowering project on threatened and endangered species listed by the Service and any critical habitat of such species in the vicinity of the project.

COASTAL ZONE MANAGEMENT ACT OF 1972

- Enacted by Pub. L. 92-583 (16 USC 1451 et seq.)
- This Act encourages states to develop comprehensive management programs which ensure the beneficial use, protection, and management of coastal resources and requires that all activities conducted by or on behalf of a federal agency, funded by a federal agency, or conducted pursuant to an Outer Continental Shelf Lands Act exploration lease, be consistent with the coastal zone management program established by the state in which the project is located.
- Regulations implementing this Act are found in 15 CFR Part 930.50.
- JEA is required to show consistency with the Florida Coastal Management Program (FCMP) (Section 7.2).

FEDERAL AVIATION ACT OF 1958

- 49 USC 1101 et seq., as amended
- Regulations implementing this Act are found in 14 CFR Part 77 and are enforced by the U.S. Department of Transportation, Federal Aviation Administration (FAA).
- These regulations require submittal of a notice identifying any structures which, because of construction or alteration, may be a hazard to air transportation. JEA will submit FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the FAA.

7.2 STATE REQUIREMENTS**AIR QUALITY**

- PSD Construction Permit. Pursuant to the Florida Administrative Code, Chapters 62–210, “Stationary Sources–General Requirements,” and 62–212, “Stationary Sources–Pre-Construction Review,” JEA will submit an application to the FDEP for a Title I PSD Permit which will serve as the construction permit for the new and modified sources of air emissions constructed as part of the repowering project at Northside Generating Station. In addition, JEA will be required to submit an application for modification of the existing PSD Permit (# PSD-FL-010) for the St. Johns River Power Park as a result of construction and modifications to the Power Park resulting from the Northside Generating Station repowering project.
- Operating Permit. Pursuant to the Florida Administrative Code, Chapter 62-213, “Operation Permits for Major Sources of Air Pollution,” and 62-214, “Requirements for Sources Subject to the Federal Acid Rain Program,” JEA will be required to submit an application to the FDEP for modification of the existing Title V Permit for the combined Northside Generating Station and St. Johns River Power Park (No. 0310045-001-AV), including the acid rain section of this permit, as a result of modifications to these facilities resulting from the repowering project. The acid rain section of this permit is included in compliance with requirements of Title IV of the CAA.

WATER QUALITY

- NPDES Wastewater Discharge Permit. Pursuant to Chapter 62-620, the Florida Administrative Code, “Wastewater Facility Permitting,” JEA will be required to modify its existing NPDES Permit (No. FL00001031) for wastewater discharges to waters of the state. An application for renewal of this permit was submitted to the FDEP in April 1997. Modifications of this application for renewal will be submitted as changes are made to the Northside Generating Station wastewater management system resulting from the repowering project. As has been the case for the existing facility, the necessary coverage for point sources of storm water discharges associated with industrial activities will be obtained under general NPDES permits, as authorized by EPA, including a Modified Multisector General NPDES Permit and an NPDES General Permit for Construction Activities.

- Submerged Lands & Environmental Resource Permit (SLERP). According to provisions of Chapter 62-330, the Florida Administrative Code, "Environmental Resource Permitting," JEA will be required to apply to the FDEP for a SLERP. This permit addresses surface water management systems including storm water management systems, dams, impoundments, reservoirs, and dredging and filling activities including excavation in surface waters or wetlands, excavation or creation of a water body which is, or is to be, connected to surface waters or wetlands, and filling or deposition by any means of materials in surface waters or wetlands.
- Consumptive Use Permit. This is a permit issued by the St. Johns River Water Management District (SJRWMD) which authorizes groundwater withdrawal. The current Northside Generating Station Consumptive Use Permit (No. 2-031-0108 US) does not expire until the year 2000, and JEA will not need to apply for renewal until the summer of 2000. There is no need to apply for renewal before then because Northside Generating Station is actually withdrawing less groundwater than permitted by the current permit.

SOLID WASTE MANAGEMENT

- Solid Waste Disposal Permit. Solid wastes, in the form of combustion byproducts, will be created as a result of the operation of the repowered Northside Generating Station Units 1 and 2. Therefore, in compliance with Chapter 62-701, the Florida Administrative Code, "Solid Waste Management Facilities," JEA will submit an application to the FDEP for a permit to construct and operate a solid waste disposal facility.

OTHER

- Coastal Management Program. The Florida Coastal Management Act of 1978 (Sections 380.21–25, Florida Statutes) and the Federal Coastal Zone Management Act (16 USC 1456) require all activities that are undertaken, licensed, or permitted by federal agencies to be consistent with the FCMP. A number of state agencies review federal agency activities to ensure compliance with the FCMP statutes and authorities within their jurisdiction and submit comments on such compliance to the agency charged with making the state's final consistency determination. When the project is the subject of a state-issued permit that is analogous to the federal license or permit in question, however, the issuance or renewal of the state permit is the state's final determination that the federally permitted activity is consistent with the FCMP. Federal permits issued under the Rivers and Harbors Act and under Section 404 of the CWA are analogous to the SLERP issued by the state. Those aspects of the repowering project at Northside Generating Station that are governed by permits issued by federal agencies under these statutes will also be governed by the SLERP issued by the FDEP. FDEP's decision to issue or deny that permit will constitute the state's determination of compliance with the FCMP. All other permits for this project will be issued or renewed by state agencies.

7.3 LOCAL REQUIREMENTS

JEA will be required to comply with a number of local environmental and zoning regulations specified in the Ordinance Code of the city of Jacksonville for construction and operation of the Northside Generating Station repowering project. Following is a description of specific permits and certificates required for the repowering project at Northside Generating Station.

- *Rezoning.* If any new property is acquired by JEA for the Northside Generating Station repowering project, rezoning of the property will be required. (Ordinance Code Chapter 656, Zoning Codes, Section 332.)
- *Zoning exception.* Ordinance Code Chapter 656, Section 656.401, requires a zoning exception for power generation facilities.
- *Concurrency reservation certificate.* Ordinance Code Chapter 655, Concurrency Management System, describes the system established to measure the potential impact of proposed developments on the adopted minimum levels of service for traffic circulation and mass transit, potable water and sanitary sewerage, solid waste, drainage, and recreation, as established in the 2010 Comprehensive Plan. A concurrency reservation certificate or Conditional Capacity Availability Statement is required prior to the issuance of all final development permits (such as a building permit) and final development orders (Section 655.111).
- *Building permit.* JEA will be required to obtain a Building Permit from the city of Jacksonville Building and Zoning Inspection Division. Requirements and procedures for obtaining this permit are described in the Ordinance Code, Title VIII—Construction Regulations and Building Codes, Subtitle A—Building Codes, Chapter 320, General Provisions, Part 4. Permits. As described in Section 320.403, in addition to an application for a building permit, JEA will be required to submit, and have approved, two sets of plans and specifications for the repowering project.
- *Landscape and tree protection.* Removal of protected trees and landscaping of newly developed property are addressed by the Ordinance Code, Chapter 656, Land Use, Part 12—Landscape and Tree Protection Regulations. These regulations require a survey of existing trees on the property, a site clearing and tree removal or relocation permit (for removal of protected trees), a mitigation plan addressing the replacement of trees removed during construction, and an approved landscape plan. These requirements must be met prior to issuance of a Building Permit.

The following requirements may apply. Their applicability is being determined on the basis of project design considerations and choices among alternatives within the proposed action.

- *Engineering plan approval.* Although this requirement does not result in a permit or certificate, approval of engineering plans is a requirement of Ordinance Code Chapter 654, Code of Subdivision Regulations.
- *Development agreement.* Ordinance Code Chapter 655, Concurrency Management System, Part 2. Jacksonville Development Regulations, defines the requirements for a development agreement. JEA may voluntarily enter into a development agreement with the city of Jacksonville. The agreement would address many of the concerns of the 2010 Comprehensive Plan and would include, among other things, a site development plan for the land subject to the development agreement (Section 655.206).
- *Solid waste disposal or management facility certificate.* JEA will construct a combustion byproducts disposal facility (landfill) on Northside Generating Station as part of the repowering project. Therefore, in addition to a state of Florida construction and operation permit, JEA will be required to obtain a certificate from the city for this solid waste disposal facility, according to Ordinance Code Chapter 380, Solid Waste Management, Section 380.103.